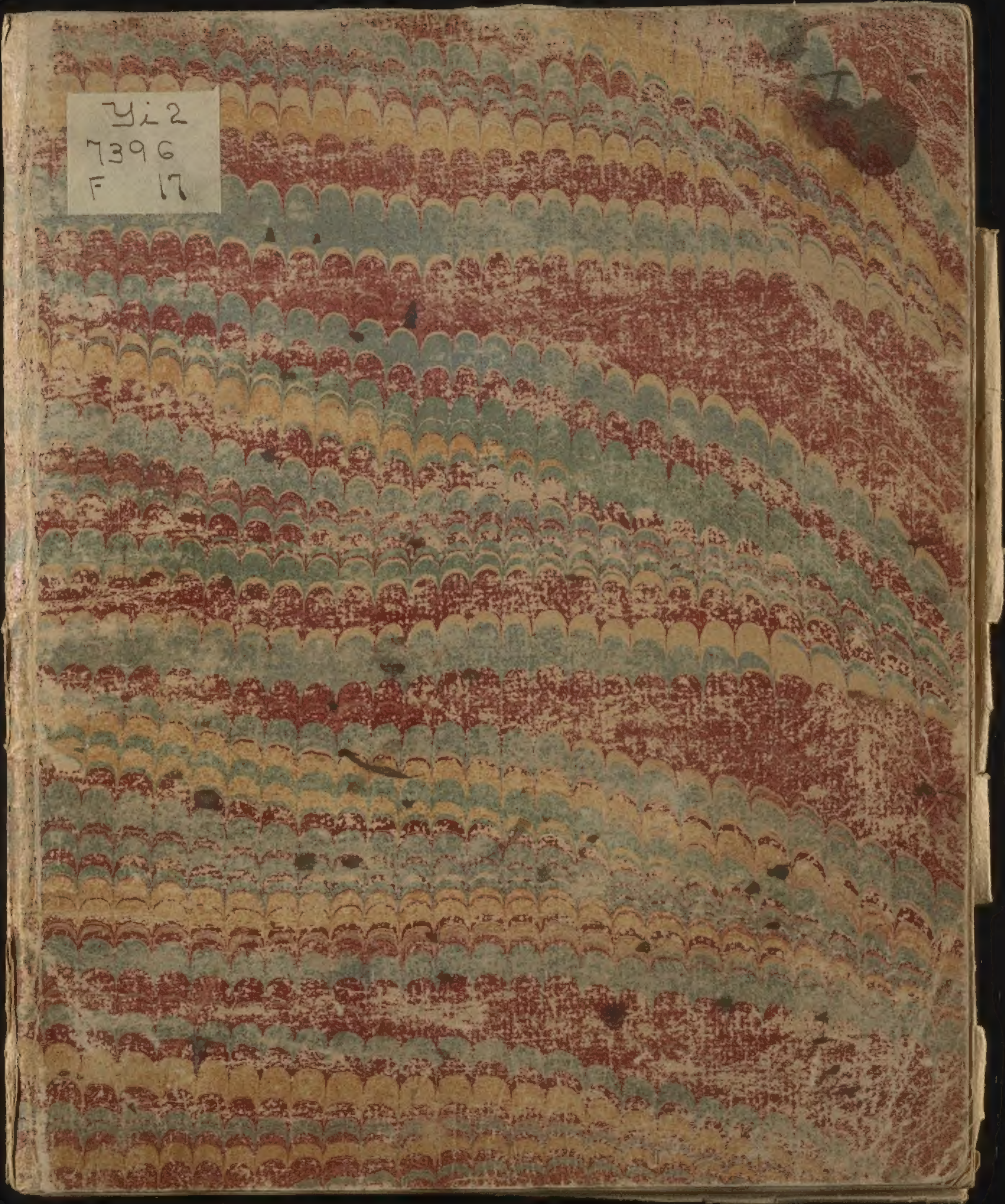
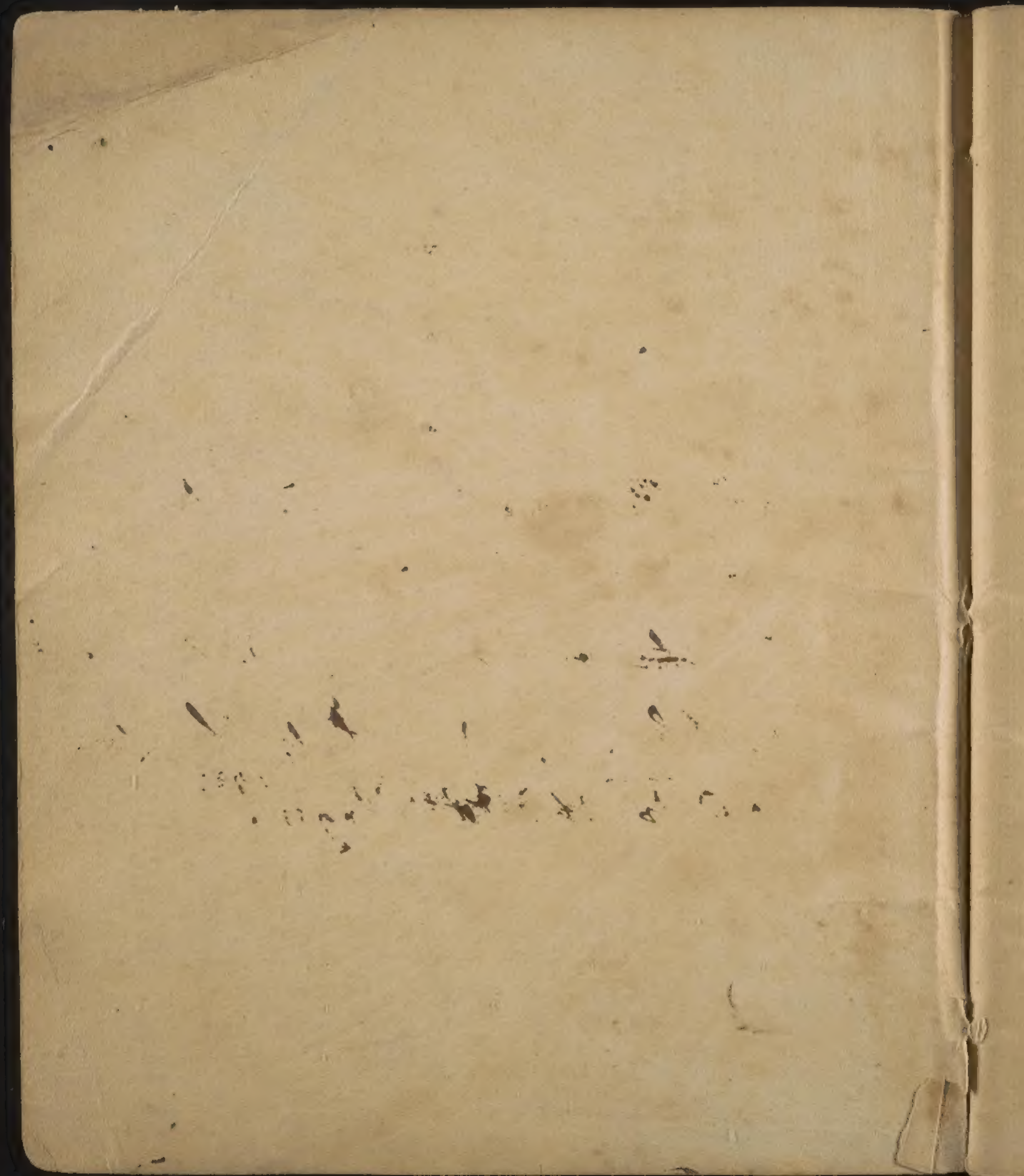


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Lectures on

Pathology -

Began Feb: 4th 1793.

Use of Diseases - 6.

~~Direct & indirect debility~~ 24.

~~Moral & physical loss~~ 24

of Heat ——— 29.

Began in 1804 Decem^r 10th 18

—— in 1805 Decem^r 19

—— in 1808 Decem^r 13.

✓ I have hitherto ^{considered} the human
body, as Divines consider the
human mind in paradise,
viz in a perfect, or healthy
state. It remains now that we
view this body, as Divines view
the mind after the fall, viz in an
state imperfect or diseased state.
Sickness, ^{& death} like moral evil ^{were}
the consequence of the loss of prime-
val innocence.

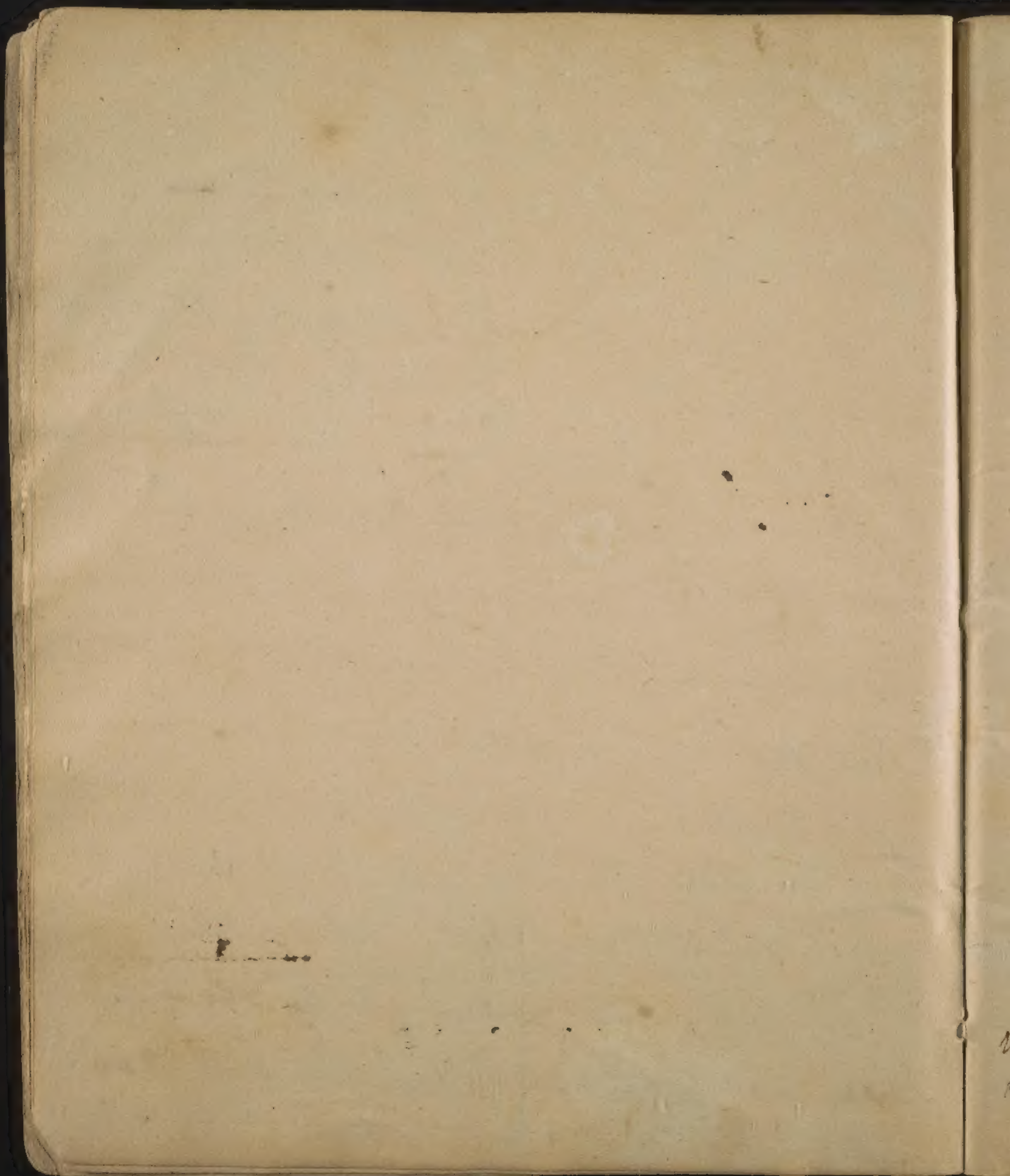
Gentlemen, ✓

~~I for my introductory lecture of
my lectures on Physiology &
informed you that I intended to follow
Pathology the divisions which consider
the example of the divisions which consider
man in a state of innocence,
and afterwards describe the
vices & weaknesses
which were introduced into his
mind by his apostasy from his Maker.
— I have hitherto considered the human
body only in ~~that~~ ^{its} state of healthy state.
It remains now that we follow it
from the gates of Eden, and examine
the changes which have been pro-
duced upon ^{it} by the vices & passions,~~

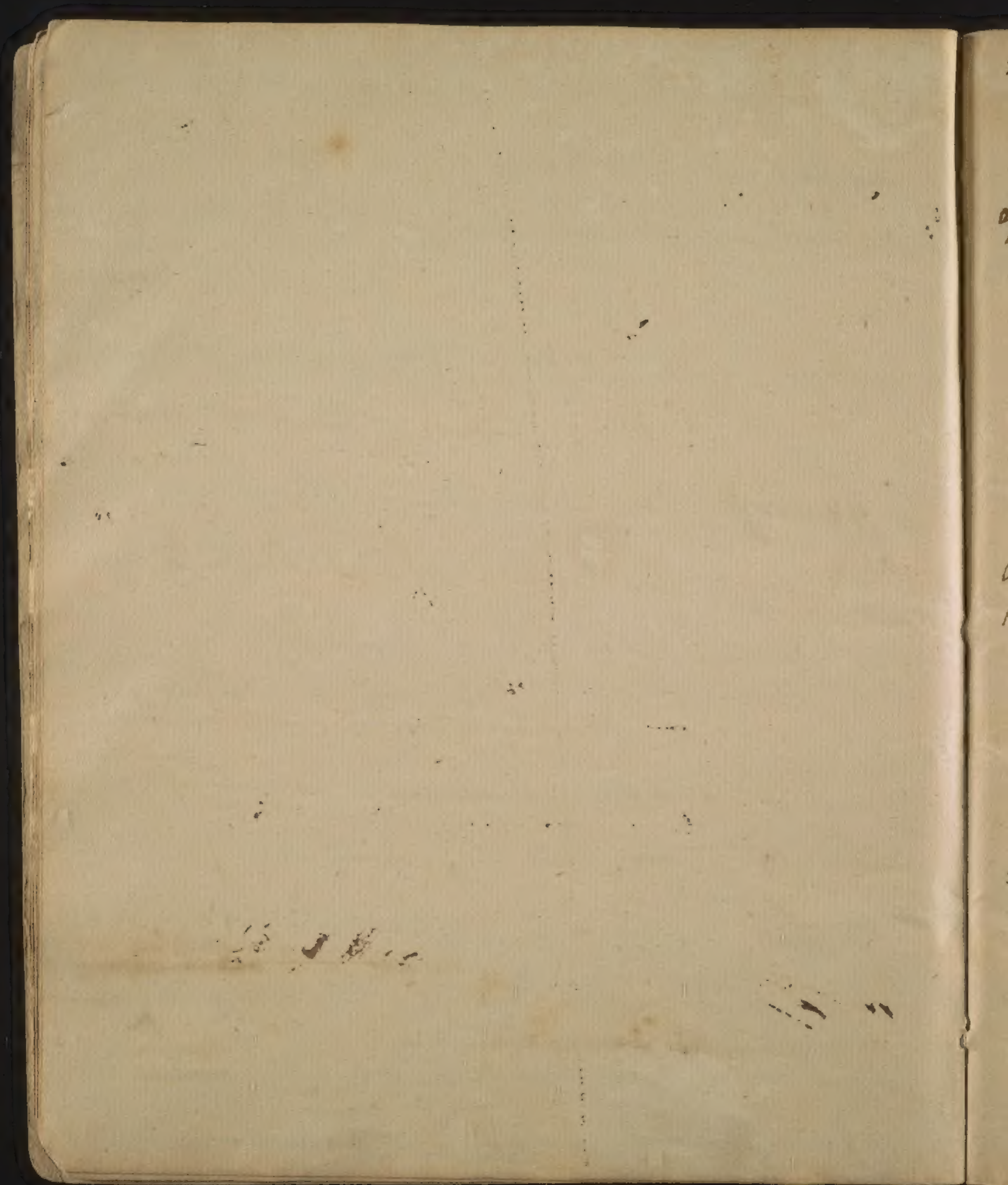
10. 11. 12.

22.

and by the storms & tempests to which
 it was exposed in consequence of the
 loss of primordial innocence. To ~~this~~ the
 fall of man we must ascribe the origin
 of sickness and death. It is true the execu-
 tion of the sentence of death which was
 denounced against ~~him~~ ^{man} was ~~not~~ ^{delayed}
 beyond the day of his Apostasy, but the
 causes which finally produced it began
 to act upon his system as soon as he
 lost the image of his Maker. Every
 element in nature took part with
 his offended Creator, and conspired to de-
 -stroy ~~his~~ ^{his} life. This operation for
 a while was ~~retarded~~ ^{feeble and} slow. Since
 we read that man for the first 2000
 years after the fall, attained to the



great age of nearly 1000 years. ~~It was~~ ^{It was}
~~from~~ not till after the deluge that the
 life of man was contracted to its present
 limits. many causes have been supposed
 to have produced this change in the duration
 of human life. — One of the most common
 & powerful has been the influence of the
 Deluge on the surface of the earth & upon
 the temperature and quality of the
 atmosphere. — ~~But other causes seem~~
~~to have combined with them, for not~~
~~only the sun, earth, and air, but~~
~~the sea — all our abiments & dwellings —~~
~~all our occupations, & pursuits —~~
~~even our very pleasures, all seem~~
~~to have taken part with the~~
~~human race in being~~
 But other causes seem
 to have combined with them, for not
 only the sun, earth, and air, but
 the sea — all our abiments & dwellings —
 all our occupations, & pursuits —
 even our very pleasures, all seem
 to have taken part with the
 human race in being



majesty of heaven, to

4

~~Creator~~, and have conspired to destroy
 the life of man. That Life is ^{the effect} ~~enforced~~
 of ~~inbreption~~ ^{of inbreption}
~~the~~ therefore, and preserved only by the
 operation

operation
~~action~~ of countries acting ~~themselves~~ appears
 to be ^{is} no less consonant to religion,

have to true philosophy. — It would
that has

seem as if the principle or quality ~~was~~
 been called Life was ~~the offspring of~~ a constant

for 20-30 ~~to~~ ^{or 100} 70 years wholly to the term

for any victory of the Stimuli I ~~found~~
in the lectures upon animal life,

by immersion, over the courses which

conspired to extinguish it. —
~~as to 12. 10.~~

In ~~the~~ entering upon the history of
the numerous & distressing diseases to
which the human body is exposed, ~~we~~



Let us not
~~we are apt to~~ arraign the divine good-
 ness, or suppose that the benevolent father
 of the human race delights in the
 misery of his creatures. This is so far
 far from being the case, that ~~disorders~~ diseases
 are all blessings in disguise, and
 in the present imperfect state of hu-
 man nature are absolutely necessary
 to individual as well as to general
 happiness. To ~~see~~ console us under a
 view of the melancholly ~~state~~ ^{chart} of human
 misery from this quarter which I
 shall shortly lay before you, I shall
 briefly mention the important
 uses which diseases are probably
 intended to answer in the present

V2 Diseases have been the means
not only of impelling us to
the study of Anatomy, but of
promoting physiological knowledge.

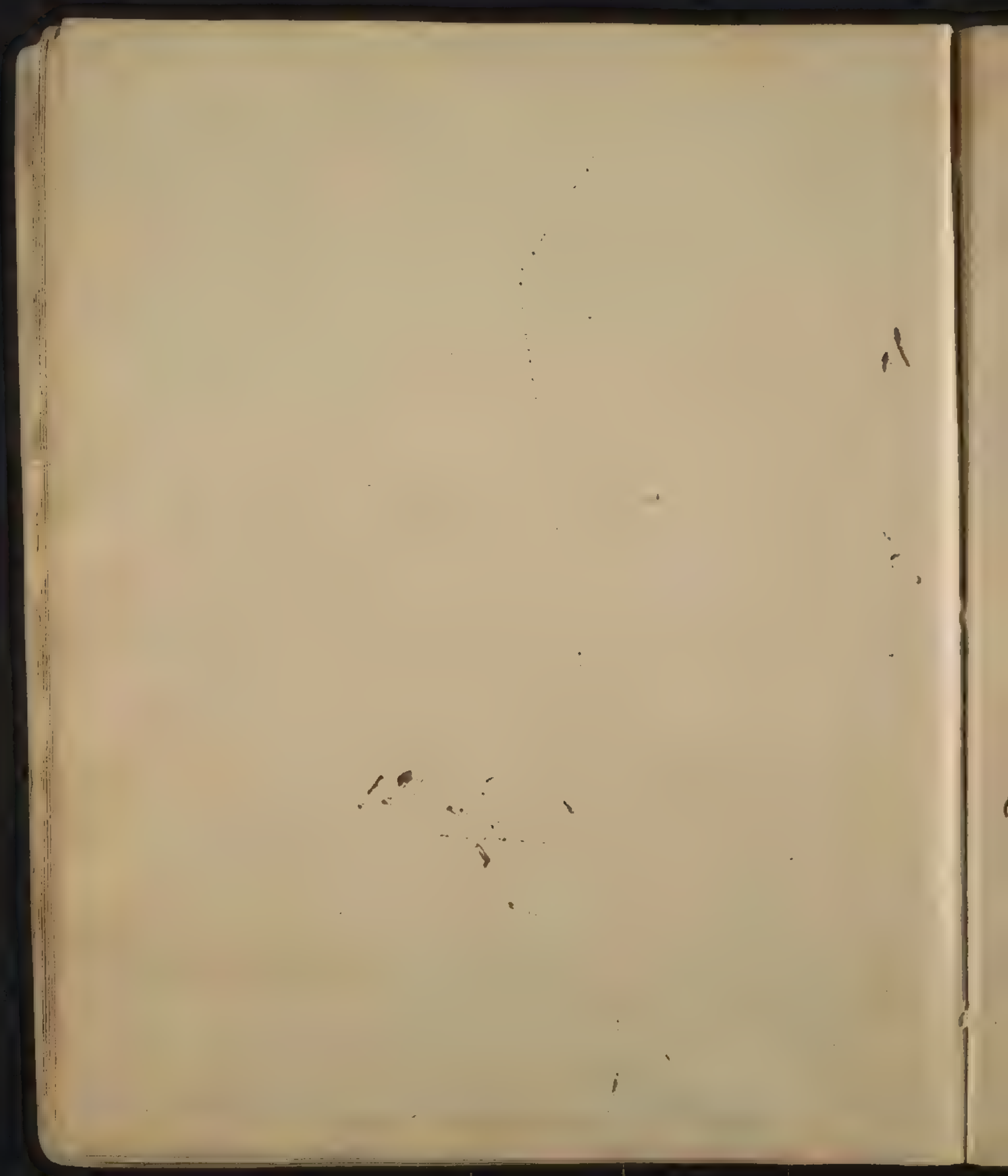
- By examining the ~~actions~~ functions
of the body in a diseased state,
we become acquainted with their
natural actions in a healthy state.

+ in order ~~to discover remedies~~ ^{to} in
them for the cure of those diseases, and ~~thus~~
~~send us~~ ^{thus} make us acquainted with
Botany, Chemistry, & natural history.

State of things.

1 Diseases lead us to the study of anatomy, whereby we are led to admire the wisdom of and goodness of the Supreme being ^{wh} are manifested in the structure of the human body. Without such objects as the removal of diseases, or the preservation of health, who would ever submit to the task of dissecting dead bodies, a business which is entered upon with horror, and rendered tolerable only by habit ^{necesity} ~~or necessity~~. - V

3 Diseases lead us to study the works of ^{the} Creator in the vegetable - animal & mineral kingdoms, ~~and thereby we~~ without them, we should have no Botanists - Chemists nor Naturalists. There have all been



Physicians without whom the ^{works}
 of nature in these kingdoms would
 have been explored & unknown - and
 unadvised by the Children of men.

4 Diseases furnish excellent opportu-
 nities for the exercise & improvement
 of the mental faculties.

5 There would have been but few
 opportunities without diseases, for the
 exercise of that humanity & benevolence
 which are the perfection of our natures,
 & which cause us to resemble the
 great father of ^{the Universe} ~~universe~~. Hospitals &
 Dispensaries include a large portion
 of human misery. If these were
 abolished, human Virtue would
 languish for want of Opportunities

the
of most ~~they~~ often ~~consider~~ death
desirable ^{to} us. Did we ~~quit~~ ^{relinquish} our present
comfortable residence in this world,
in the full enjoyment of health, and
of all the blessings that are connected
with it, death would be terrible to us
beyond the possibility of enduring it, but
we kindly sent the
diseases, reconcile us to its ~~approach~~ death,
may more ~~they~~ often render it desirable. But
of not only reconcile us to our own deaths, but
of Diseases, by the pains & suffering which
they create in our ^{dearest} friends, reconcile us
to their deaths, ^{likewise, & sometimes even} ~~was even~~ ~~they~~ often

to display the celestial virtue of charity.

As the painful heats of summer, &
Colds of winter, are necessary to render
the temperature of spring delightful,
As Darkness gives charms to light, - as
deformity renders beauty captivating,
As evil is necessary to lead us to
good, and as error serves to enhance
the pleasure of discovering truth, so

in like manner diseases are necessary
to impart a ^{proper} relish for health.

~~If Diseases ^{reconcile us to death, may}
our passage out of the world be
amiable to the sufferers, & life dis-
trepping to the deniers.~~
~~I th ~~scarcely~~ escapes by this physical~~

cause us to look with solicitude ^{for} to
rejoice in the moment which by ter-
minating their present existence, ^{shall} pre-
sent an end to their misery.

V ~~produces~~ conduces very much to ~~the same~~
~~then~~ promote vigor and activity of mind --
-- it informs us in many cases of the seats
of diseases -- and above all it is the harbinger
or sign of disease as to impel ^{so much} sick people to
desist from ~~the~~ such pursuits as would
exacerbate ~~these diseases~~ them, & to seek for
relief: ~~medical~~ or medical aid, for relief:
It is a remedy in many diseases. ~~are~~
~~these~~ the ~~good~~ beneficial effects of pain ~~are~~

best seen in the fatal or disking effects
of those diseases in which pain is not
an early & constant symptom, - these are
Cancer - Consumption - Chronic Inflammⁿ
of the Liver - and frozen limbs. - In the

to 9 Diseases by their physical
influence upon the moral faculties
create and
improve human Virtue, ~~and~~
~~thus add to the general mass of human~~
~~happiness.~~ ~~But to retrench~~

have
hundreds and thousands of people, ^{and this}
moral habits, and all the happiness that
is connected with them both here, and
hereafter to ~~conquer~~ ~~the~~ an Attack of

a violent - painful, or dangerous Dis-

^{more}
= ~~A creature passive~~ ^{virtue} ^{which is far}
^{cast} ~~But to retrench~~ ^{with this sort}
^{of} ^{that which is active} ^{Passive} He is
^{from} ^{the} ^{subject} ^{of}
^{not} ^a ^{great} ^{man} ^{who} ^{can} ^{perform}
^{great} ^{things} ^{as} ^{he} ^{is} ^{that} ^{can}
^{lastly} ¹⁰ ^{not} ^{only} ^{diseases} ^{but} ^{we} ^{have} ^{with} ^{to}
^{mentioned} ^{the} ^{effects} ^{of} ^{diseases} [&] ^{pain} ^{but}

pain alone has many ~~fabulous~~ advantages,
connected with it. It ~~is~~ is probably one of
the first impressions ~~of~~ on the animal body
in the production of life. ~~and~~ It certainly

last, the trees are often destroyed ^{without} before ~~same~~
pain, and the cold thereby permitted to
affect the whole body with Disease &
death. With this short introduction I
proceed to our pathology.

From the Universality, Certainty & Advantages
of Diseases, we are led to consider them as ~~the~~
a part of the natural portion of ~~man~~ not
as adventitious ~~and~~ incidents, ~~as~~ but as a
part of the natural portion of man. ~~They~~ ^{feel}
~~to~~ The ~~human~~ ~~practices~~ ~~the~~ ~~world~~
pain in our entrance into the world - ^{This}
is so universal, that we are distressed when
a child does not discover - ^{may} we are
sore when grown up.

In entering upon this part of my
 course I am left with ^{fewer resources} ~~without a guide~~.
 from ~~books that~~ my ~~predecessors~~ ^{in medicine} than from
~~the rest of the world~~ ^{There have}
 been but few books published upon

Pathology. Dr Boerhaave began some-
 thing like a system upon it, — but
 his observations ~~upon it~~ are short
 & imperfect. Dr Haller, ^{& Dr Hoffman} have given us
~~his~~ scattered here & there ~~a few~~ in
 their works a few pathological facts,
 but they do not amount to anything
 like a system. Dr Yambino has given
 us a system of pathology, but it
 is so filled with the humoral pa-
 -thology of his master Dr Boerhaave,

✓

p 11

There have been many definitions of disease. It would be a waste of time to mention most of them. ~~It is~~ It is

impossible to deliver one that shall embrace all the properties of disease in all its forms. The least exceptionable of

any that I have met with is that which Dr Sydenham has rejected in ^{is nearly} the preface to his works. It ~~is~~ ^{is} as

follows "Disease consists in the confused and irregular operations of ~~confused~~

disordered and debilitated nature". You will I hope see the propriety of this

^{Definition} When we come to mention the proximate cause of disease.

Subject of copiousness of quantity, we

said, he did not believe that there existed
such a creature as an Atheist in the world.
"You are mistaken said one of the com-
pany, - (rising from his chair) - I am
an Atheist! - Equally absurd & equally
bold would that man be thought, to be
who should in many societies of physicians
rise up and call himself a theurist in
medicine. In ~~the assembly of the~~
~~this definition you see includes every~~
~~deviation from the system from ^{moral} beauty~~
~~as well as physical order.~~ Assembly which I have
now the honor of addressing. I feel it is
no mark of courage to make that declaration.
composed of young gentlemen whose minds
are as yet uncorrupted by ^{the vices of} ~~every~~ ^{or} ~~the~~ ^{own} ~~love~~
~~professors~~ of ~~the~~ ~~theory~~; it requires no courage to make
that declaration. I profess myself publicly
a theurist in medicine. I came here to teach
the theory of medicine, and ~~would~~ you came
here to be taught the theory of medicine, or
in other ^{words} to exercise your preeminence over
the Brutes in reasoning upon the causes
of disease.

To understand what is meant by a disease
 it will be necessary to observe that it is a
 deviation from that state of the human
 body in which all the functions of both mind
 & body are performed with perfect ease ^{that is health.}

[By a disease I mean a change in
 the proportion and order of motions in
 the solids, and fluids of the body. ^{figure and} also
 of place of quality & motions in the
 also
 of ~~solid~~ - irregularity - or deficiency of
~~are of such a nature as to affect the~~
 motion in the functions of the mind
~~as well as the body.~~

The causes of diseases are divided into ~~remote~~
~~remote~~ - ~~predisposing~~ - ~~occasional~~ ^{or exciting} and
~~proximate~~. They are ~~links~~ ^{all} of one
 chain - but sometimes ^{two of them} they are
 so blended together ^{so} as not to be dis-
 tinguished from each other. ^{E.g.}

✓ you are not to suppose that every disease is produced by their causes, in the order I have mentioned them ~~the~~ ~~remote and the exciting causes are~~ very remote and the exciting causes are very

they are always independant of each other. The remote ^{the predisposing} & the exciting ^{causes} are often blended together, & act at the same time. Eg: strong drink inducing intoxication is often a remote & existing cause of a fever. Predisposition to a disease ^{however} from debility is often so great as ^{external} not to require an exciting ^{cause} external.

to bring it into ~~primary~~ action. The circulation of the blood, or a single act of the mind is sufficient for this purpose. ^{may} Again - miasmata - are the remote cause ^{the} of a heinous fever - The debility induced upon this system is ^{sometimes its} predisposing cause - ~~from~~ ~~but the~~ ~~debility~~ ~~is~~ ~~often~~ ~~aided~~ ~~by~~ ~~fatigue~~ ~~from~~ ~~exercise~~ ~~,~~ ~~-~~ ~~intemperance~~ ~~is~~ ~~its~~ ~~exciting~~ ~~cause~~ ~~,~~ ~~or~~ ~~a~~ ~~convulsive~~ ~~action~~ ~~in~~ ~~the~~ ~~blood~~ ~~upels~~ ~~its~~ ~~proximate~~ ~~cause~~ ~~.~~ ~~By~~ ~~proximate~~ ~~cause~~ ~~I~~ ~~mean~~ ~~with~~ ~~garbino~~ ~~"Ipsa morbus"~~ ~~the~~ ~~disease~~ ~~itself~~

debility is often aided by fatigue from exercise, - Intemperance is its exciting cause, or a convulsive action in the blood upels its proximate cause. By proximate cause I mean with garbino "Ipsa morbus" the disease itself.

~~Sometimes the same cause becomes~~
~~the remote and predisposing cause.~~
 I shall briefly illustrate what I mean by
 each of them. The ~~alteration~~ action of cold
 is the ~~same~~ remote cause of ~~proceeding~~ ^{inflamed fever}
 - debility induced by this cold is the
predisposing cause - the heat of a ^{fever} ~~asthenic~~
 worn, or of the General ~~fever~~ ^{is} the exciting
 cause, - and a convulsion is the arterial
 system is the proximate cause of
 this fever. ~~The pain - heat - thirst &c~~
 are all symptoms of the ^{or signs of the} proximate cause.
 The investigation of the ^{proximate} causes of
 diseases will naturally lead us to speak
 of their seats - The history of
 these symptoms belongs
 to the province of physic.
~~to another profession~~. I shall mention
 no more of them & are necessary to

~~Before I enter upon the consideration of~~
~~the proximate cause of disease.~~

✓ By the proximate cause of disease I
mean with Galienus - "ipse morbus" - the
disease itself. I am aware of the objections
to which this account of the proximate
cause of disease is liable. But it is much

~~the influence of certain systems~~
~~prevailing before & after the birth~~
~~of a child.~~

It is exceptionable that that which has
been substituted for it - viz Excitability,
for diseases I shall say hereafter of some
times come on without its intervention,
or even the existence of ~~near~~ predisposing
or remote causes, ~~or I shall say hereafter.~~

In considering the proximate cause
of disease, I ~~shall~~ in former years, I ~~have~~
as well as in my ~~late~~ publications I
have endeavoured to avoid giving offence.

demonstrate their seats & their causes.
nor shall I ever mention the remedies
which are proper to remove diseases
except when I am ^{forced} to do it ^{for the}
^{same purpose}. In treating upon the
~~to explain them~~ subjects of pathol? I shall follow the order of the
syllabus. ~~The~~ following is the order I have
adopted for ~~my~~ ^{our} lectures on Pathology.

1 Remote Causes. These will include
the ~~for~~ influence of the following circumstances
on our bodies. 1) ~~The treatment of the body in infancy~~

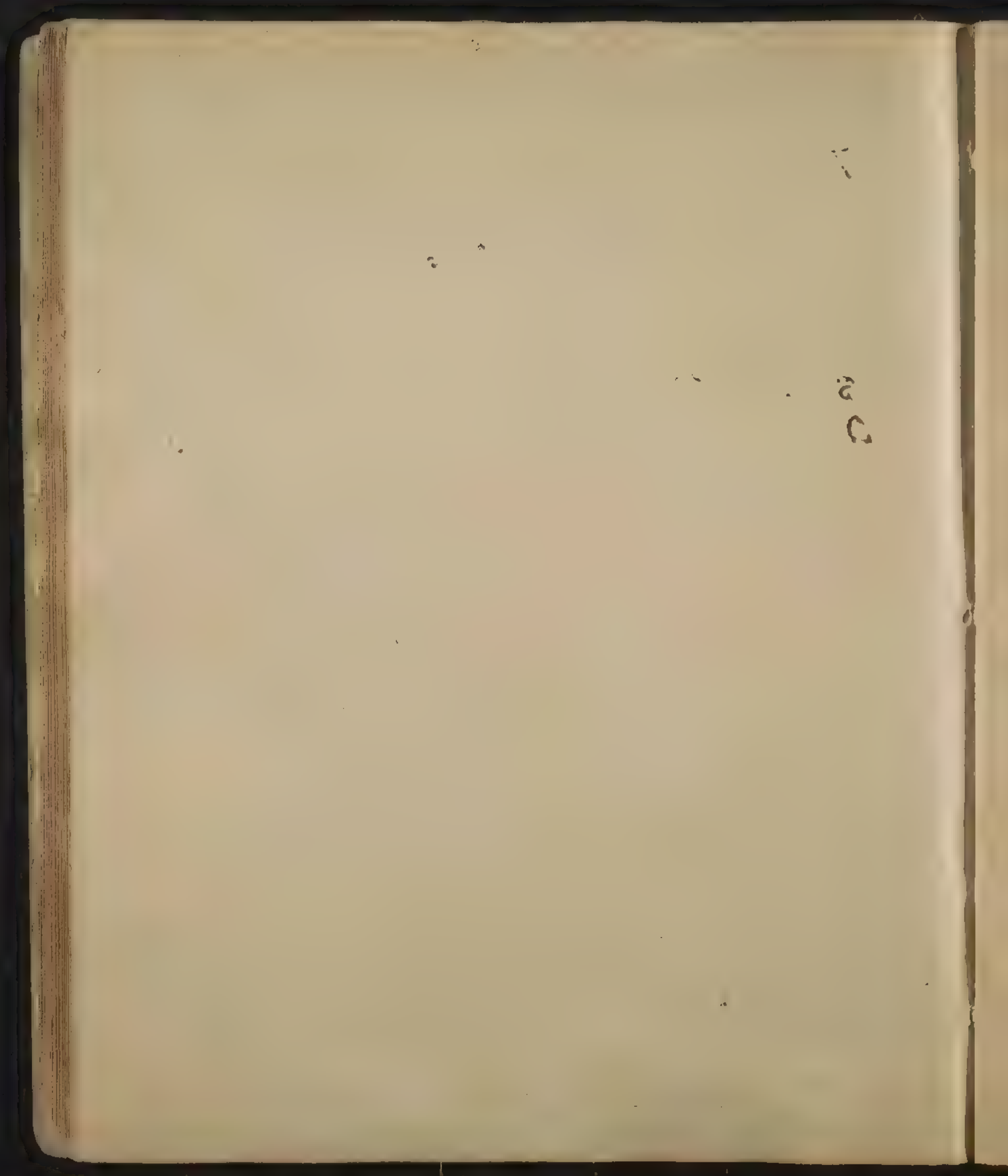
2 Air -
3 Aliments - food & drinks and
drinks especially in children
4 ~~the habits of the~~

5 motion & rest - Sleep &
6 ~~the~~ ^{Drugs} ~~the~~ ^{carefulness} in excreta.
7 Foreign matters introduced
into the system. These are
(a) Contagions.
(b) Poisons. -

by using as few new terms as possible; hence
I have adopted ^{some of} the terms of Dr Brown. The
use of those terms has with different ideas
annexed to them from ^{those of} Dr Brown, has I
fear produced some obscurity in my
account of the proximate ^{cause of disease.}
It has moreover exposed me to ^{myself} ~~what~~
~~ful to be a~~ ^{the} ~~reproachful~~ epithet of being
a Brunonian, by superficial readers.
For which reason
To avoid both of those ~~in~~ ^{to} evils, I shall
endeavour to convey the same ideas
formerly taught upon this subject by
the use of ^{several new} ~~some new~~ terms which I
shall hope will render my opinions more
intelligible, and spare me from the im-
putation of being a Brunonian that I have
mentioned. —

90 to p: 200

prop: I.



Quacks & in the operations of nature.

(14) The imprudent use of certain remedies without or contrary to the advice of a physician, - as Opium - Bitters - Nitro

15th Sympathy

(16) Fire - which always brings with ^{superior} it pain & disease. It was the only power the late King of Prussia owned in his last illness. -

II The predisposing causes of diseases
Natural or artificial - the first

are, 1 Different Ages as

Pregnancy.

(a) Infancy.

(b) Childhood

(c) Puberty.

(d) Adolescence.

(e) The period in which the
Artificial Golden Age to the Romans
supposed to be about 36 Years of life.

. American.

(b) The period of the ¹⁷ cessation of the
menstrues. —

(c) Old age

(d) The different conditions of the system
in single and married life
temperaments.

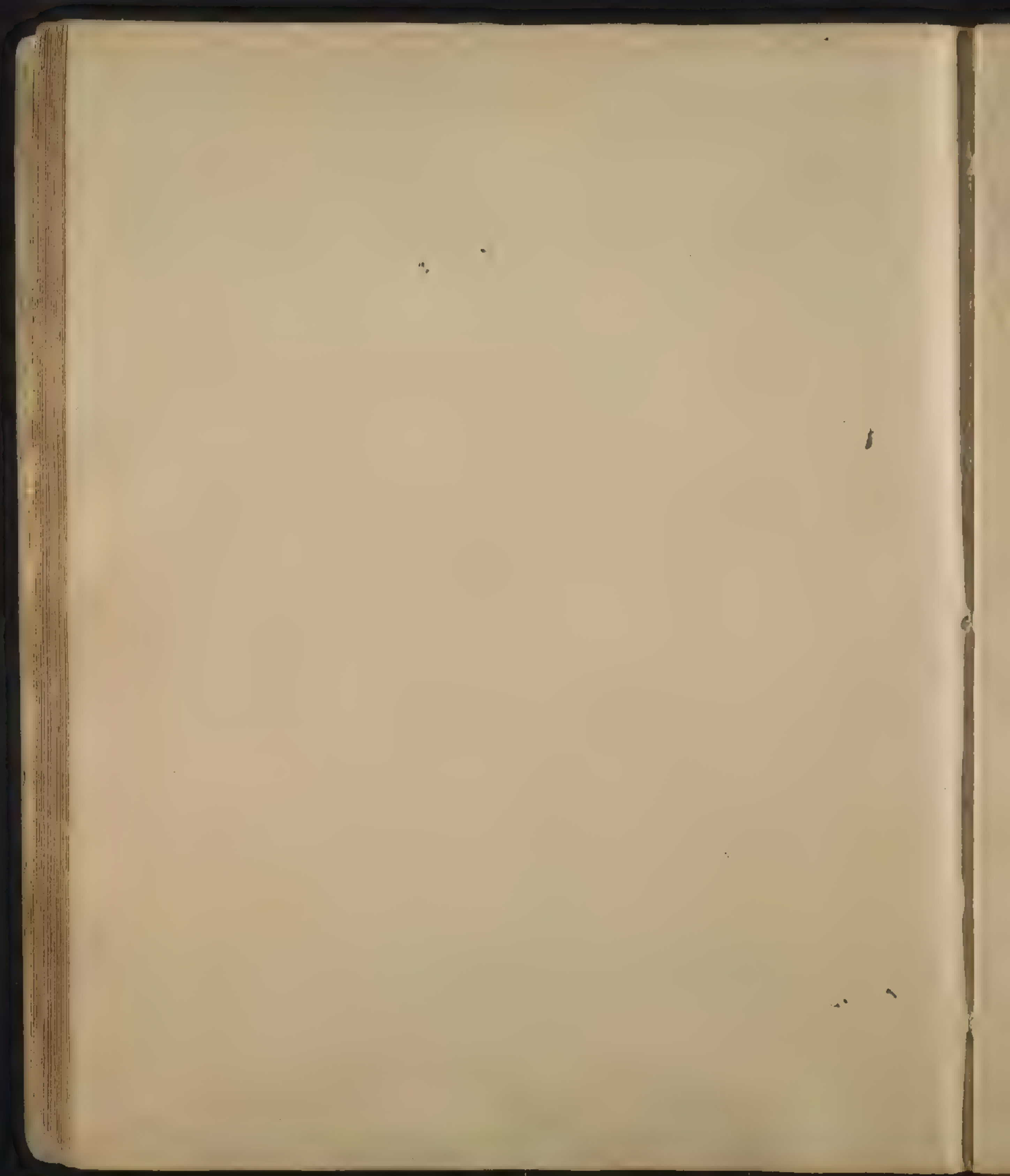
(e) Deformity in size - or configuration
of any part of the body.

(f) Congenital weakness of a part or of the whole or
of weak standing causes which are artificial.

The predisposing changes in the system
which are all such of the remote causes
as have been produced. They
have been mentioned. It has been

happily called by Dr Brown - the range
between health & the proximate cause
of the disease or of disease itself. —

III It ~~is~~ the exciting cause of
diseases are - what ever acts upon the
predisposition so as to ~~assist~~ produce the
disorder. All the remote causes may



become exciting causes under peculiar circumstances so as to act upon each other. E.g.: Fear may act upon the debility produced by intemperance so as to induce a fit of the gout. —

IV. The proximate causes of diseases are 1 general - ~~affecting~~ ^{body} These affect the whole ~~system~~ (a), this is the medium of the sanguiferous system as in fevers. (b), this is the medium of the nervous system as in ^{all the diseases} ~~convulsions~~ of the nerves from the highest convulsive disorder as Tetanus down to Asphyxia. —

(c), This is the medium of the Alimentary canal as Dysentery - Colic &c.

(d), This is the medium of the Lymphatic System as Dropsy & Scrophula.

appear 1 in Pair.

✓ The signs of diseases ~~are taken~~
counterparts,

(2) ~~from~~ in the color of the skin

(3) The teeth

(4) Respiratory appetite & the

(5) The state of the excretions.

(6) The pulse

(e) Thro' the medium of the blood, as in Scurvy.

(f) Thro' the medium of the brain as in all the diseases of the mental faculties.

2 They are partial or local - These
 affect (a) The skin. - (b) The lungs & trachea
 (c) The heart & Arteries. (d) ~~The lungs~~
~~trachea~~ (e) The Senses. - (f) the brain,
 as the heat of ^{too much} wakefulness or sleep. (g) The
 Stomach & alimentary canal (h) ~~The~~
 The lacteal vessels. - (i) The glands, (k) the bones
 The organs of generation (l) the Uterus.
 (m) every part of the body - in Sores &
 & tumors. -

3 Old age

4 Death. ———— ✓

TV you are not to suppose that this last
Chain of causes occurs in every disease,
or in the order I have mentioned them.
There may be remote & proximate ~~causes~~
~~causes~~ ^{as in the small pox} & predisposing - as in the small pox. The

predisposing too often occurs without an
remote cause - as the hemorrhage from
the nose without ^{in puberty} ~~in childhood~~ or exercise.
kind. - Where ~~there~~ a remote cause
acts on predisposition it should be consi-
dered as an exciting cause. [Then
the predisposition may be a proximate
cause e.g. weakness from too much exercise
or rest, is a disease.]

This syllabus is a yet very imperfect.
 I hope to give it to the public in a more
 correct state with a short text book of
 the lectures on Physiology next year.

In ~~the~~ enumerating ~~these~~ diseases I
 shall often be obliged to blend the remote
 and exciting causes - & sometimes by
 predisposing & proximate causes together.
 & I shall often be obliged to refer the
 same facts under the different heads
 of the causes. But this will serve only
 to connect our system more closely
 together, & to impress it more strongly
 on your minds.

Before I proceed to
~~the~~ ~~first~~ ~~beginning~~ ~~of~~ ~~considering~~ ~~our~~
 our first head, - I shall but briefly

remote - predisposing

The ^{debility} and the proximate
causes are here blended together in a
close & quick succession. The ^{debility} ~~predisposition~~
is evident from the languor - ^{anguor} coldness
& ^{capitane} ~~debility~~ which ^{precede} ~~invariably~~ these diseases.

deliver a few general 21 propositions. ^{all} ~~most~~

~~I propose to consider these in the following order~~
~~I All diseases which are produced without~~
~~the intervention of the food depend~~

~~on predisposition depend upon~~

~~on predisposing debility. I except only~~

~~those which arise~~

~~diseases from local causes - wounds - and~~

~~some local diseases. Even the certainty~~

~~of violence of contagious diseases is increased~~

~~until they have first induced debility. ✓~~

~~improved by debility. This debility is of~~

~~kind by Dr Brown to be~~

~~two kinds. viz direct - & indirect. To~~

~~understand the meaning of these terms it~~

~~will be necessary to fix the healthy point~~

~~of excitement in the system at a certain~~

~~degree upon an imaginary scale. I shall~~

~~choose for this purpose the No 50. - ~~now~~~~

~~When the system is stationary~~

~~from an exact balance between~~

~~stimuli and its excitability. When~~

[The symptoms of both, are
so exactly alike, that they can
be distinguished only from
their causes.]

there is an Abstraction of Stimuli the
 System falls below 50 - ~~which case~~
 direct debility is induced & when there
 is ^{great} excess in the force of numbers of
 stimuli indirect debility is induced. These
 two species of debility ~~are in some cases~~ have been consid-
 as by Dr Brown, this is an error, for
 diseases, but ~~in general~~ they only
 predispose to diseases. ^{range of} The predisposition
 may be confined to 10: ~~above~~ below & 10:
 above the point of healthy excitement,
 when it ~~extends~~ ^{descends} then below 40: or
 extends above 60: it may be considered
 as ^{very near to} an actual disease, ~~this is the~~ ^{for} the
 System seldom remains long in this
^{repeated} state of direct & indirect debility. - for
 It is a condition of the System that

" Diminution

& The ~~loss~~ ^{sudden} of excitement whether by causes which produce direct or indirect debility is succeeded by ~~what is called an~~ ^{an increase or accumulation} ~~action~~ of what is called excitability - that is a disposition to be acted upon ^{by} with stimuli ~~which~~ with preternatural force, by stimuli ^{or irritants} which produce only natural motion in the healthy state. The more sudden the diminution of the excitement, the greater the excitability which is produced. There appears to a transmutation of excitement into excitability in the production of diseases, & the cure of them in many cases consists in nothing, but the conversion of this excitability back ^{again} ~~back~~ by means of medicine into excitement. - Where debility, whether direct or indirect has continued a great while

seldom fails to invite a disease ~~of another~~
~~kind to be contracted hereafter.~~

But to ^{return} I consider the ~~to~~ existence of this
 predisposing debility, ~~its~~ ^{its} consequent excitability,
 general Diseases as the corner stone of
 every system of physic. I invite you
 therefore gent. to examine it thoroughly.
 If you resist it - ~~reject~~ the whole
 fabric I have endeavored to build upon it,
 must ~~last~~ tumble with it. I ~~do~~ call upon

thus early to attend to the ~~most~~ ^{most} causes in
 which of the remote causes to be described
 presently act on the system - and I think
 you will perceive that it is only in
 one way - viz: by inducing direct or
 indirect debility.

go to p. 23

I shall begin by mentioning

it is followed by a diminution of excitability as well as excitement, - hence the necessity of strong stimulating powers to a frequent ~~continuous~~ change of them to act upon the remains of the excitability. There appear to be certain latent resources for this excitability in the system - and so abundant are these resources that I believe few men die without carrying with them to their graves such a portion of it as would have lasted them for many years.

- Excitability & excitement are different proportions to each other in different stages of life. But more of this hereafter. - The ~~absolute~~ ^{total} destruction of excitement & excitability is the proximate cause of death; or in other words, ^{Death deprives} ~~they reduce~~ animal matter to a level with earth and other dead ~~of its power~~ ^{sensations} ~~to emit those motions~~ ^{we} ~~call life~~ ^{call life}. no more happens then to the

Remedy clause 24
I shall begin by mentioning
the influence of certain corrupt practices
and customs which obtain in the treatment
of infants, and these we shall find are
of a debilitating nature. — and here
we shall find the words of the poet ver-
bally: — "The Child, the moment it receives its
breath
Receives the lurking principle of death."
The full disease, that cannot subside at length,
grows with our growth, & strengthens w:
our strength! — Even before it comes
into the world it is predisposed to disease
by the debility it contracts from the
indolence: — luxury: — all temperance — Amuse-
ments — ~~to~~ hard labor — and perjury of
its mother, for few women pass thro'
the period of pregnancy without being
the victim of one or more of the

body in death, than ^{what} happens to a bell
or a Violin when they are deprived by
any accident of ^{the power of} emitting sounds, or
musical tones. ^{go to 23 ff} This is a bold proposition,
but it follows from principles formerly
established. — Let us ever remember that
are no half truths in medicine, any more
than there are in Government. — Vitality
^{is as absurd as Porosobility in a bill} ~~is as absurd as Porosobility~~ ^{or musicality in an}
^{instrument of music} ~~instrument of music~~ ^{instrument of music} (says Chrysostom) we banish
simplicity from every thing, even
from that most simple of all created
things — a new born infant.

* I am led to support the opinion I
have taught of the cause of animal life,
as life by my religious principles, than
I am by my principles in medicine.
— Life independent of stimulus, creates
forces to admit a self-existent prin-
ciple, which ^{binds upon themselves} ~~is~~

evils that I have mentioned. But

X, Children are often ~~exposed~~ predisposed
by debility
to diseases from injuries received in par-
-tition from ignorant or negligent
midwives. —

2 The custom of washing the tender
- flesh of new born infants with Ardent-
- spirits - Wine - or even soap & water ex-
- cites a predisposition to many diseases. They
- all stimulate, & of course produce sub-
- sequent debility.

3 The first diet of an infant is generally
of a debilitating nature. ^{Quantity} It is either excessive in ~~quantity~~,
or of an unwholesome quality from the
mixture of Spices - Wine - ~~oil~~ or oily
Substances with it. By stimulating it
induces ~~indirect~~ debility.

4 The first dresses of Children are tight

33
[Supreme creator out of the question. It
establishes the old Epicurean doctrine of the
eternity of the world, for if motion or life can
exist independant of unroot causes or principles,
I see no ~~more~~ difficulty in admitting the
eternal existance of the world from a power
inherent in & necessary to matter - But the
doctrine I have delivered places the Deity upon
the throne of the universe. It makes him
what the poet calls him "the father of life";
or what the scriptures more emphatically
describe him to be "the only living & true
God". It moreover places Man in the
humble situation ~~in~~ of a dependant crea-
ture - & indebted to ~~him~~ ^{the} ~~all~~ the elements for
his existence every moment, - ^{and justifies the} ~~he makes his~~
^{comparison} ~~life a vapor~~ of his life being ^{to} a vapor -
or the grass of the field. - ~~and~~ It shows him
to be what Shakspeare - a mere thing,
a poor - bare - forked Animal!"

Caps - swaddling Cloaths - Stays - &c all
tend to weaken the body & ^{thus} predispose to
diseases in every subsequent period of
life.

5 The Use of Patent Spirits to allay the
complaints of Children is a source of
great debility, & subsequent diseases.

6 The influence ^{of} the Milk of Mothers
negligent ^{or intemperate} in their Diet, or wholly devo-
-ted to pleasure is a fruitful Source of
debility & ^{to} disease. I once knew death from
convulsions in a Child that had sucked
a nurse $\frac{1}{2}$ had drank $\frac{1}{2}$ of Rum, &
I have seen the Colic many times
from Acid Aliment taken in too
large a quantity by Nurses or Mo-
thers.



7 The premature application of the mind to study in children & in particular to difficult - absurd - and unprofitable branches of learning, as also the confinement of children in close ^{schoolrooms} ~~shoolrooms~~, and the tyranny of Schoolmasters all become a source of bodily & mental debility & disease. I have been called to many hundred children who have been brought home sick from a crowded school, & I think I have seen ^{a morbid excitability} ~~thousands~~ induced in the names of children by ^{leaving the} ~~the~~ ^{being} ~~being~~ ^{the} subjects of a despotic Schoolmaster.

8 The amusements of children expose the body to many debilitating causes, such as jumping - ~~running~~ falls - &c. ~~most of the time~~ They are moreover

✓ & Debility is acquired ^{in many subsequent} ~~by all the usual~~
~~for stage of life by all~~
~~and remote and exciting causes of disease~~
causes which lessen the natural excite-
ment of system by the abstraction of
the strength of the body, or by or action.

that is abstracting a portion of those
^{natural} stimuli which support life, or by
^{reducing the excitement, and}
dissipating a portion of the excitability
of the system by the gradual or chronic
application of an unusual number
of stimuli - or suffocating or suspending
the it by the sudden application of
stimuli - thereby producing what
^{a sudden}
~~shall call~~ disappearance of the system.

I shall enumerate the different
causes which induce ^{all} these
kinds of debility hereafter. ^{debility whether}
natural or acquired is - to 10:15. ©

exposed to ~~in infancy~~ falls from the arms of their
 mothers ~~masses~~ to being pinched - humped - or
 shaken by their nurses, or mothers of
 many of the cases of Hydrocephalus that
 I have known, have arisen from falls,
 or contusions on the head. I ~~and~~ have
 known one ^{case} from a stroke given to a
 child with a brush by a passionate
 mother - which terminated in death.
 This native and ~~and~~
 early acquired debility: go to p 15 ①
 I ~~will~~ ^{now} to inquire into ^{the influence} ~~the~~
^{of the Air} ~~presence~~ in producing diseases. It acts 1st by
 its sensible qualities. These are heat-cold
^{Rarity and Density.}
 moisture & dryness. Each of these is varied
 by the suddenness of transition of one to
 the other, and by local situations - and
 certain seasons and months. 2nd The
 Air acts ~~from~~ induces diseases from

U Or to use the words of lately coined by
Dr Miller of New York - "Koino-miasmatic"
& "Idio-miasmatic" exhalations. — The
former signify - exhalations from exposed
or public places - the - latter from private
or personal sources.

V In the air the properties of which
are unknown, but appear in its effects
upon the human body. and many other
as yet unknown matters.

This is a most important Subject,
and should command your closest attention.
From the sensible or insensible qualities
of the air, are derived nearly all febrile diseases,
and there is scarcely any other disease that is
not more or less influenced by them.

certain impregnations ^{ch} are mixed wth ^{the} marsh & human. ^{it}
 it - these are 1 miasma - 2 for the air
 which has been destroyed by respiration.

~~3 The miasma~~. 3 Land breeze - or the mountain
 winds. 4 The smoke of certain burnt
 substances. 5 The effluvia of manufactures.
 6 the perspiration of plants. 6 ~~to~~ one more
 not to be lost under any of the above
 heads - mentioned by Bruce viz: Samuel. ~~Scarcely~~

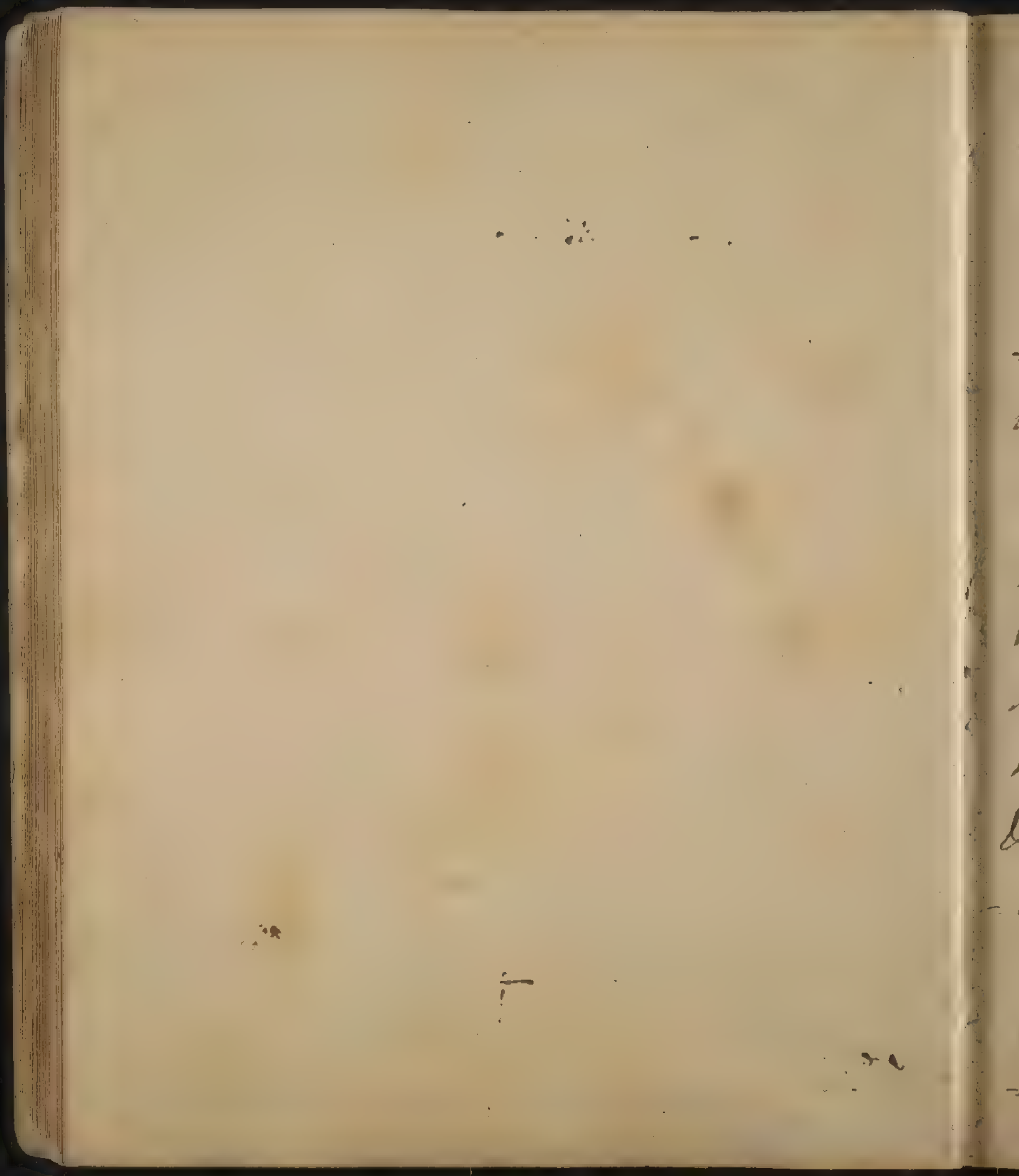
~~of the~~ influence of the

1 Of the insensible qualities of the air. - ~~as~~
~~of the~~ extent of the standing of human body
 is ~~not~~ formed so as to exist in various degrees
 of temperature of the air, yet there ^{are} ~~is~~
 certain degrees of it which ^{are} most fa-
 -vourable to health. These degrees are
 different in different ages. From 62^o
 to 75^o in middle life are most salutary.

Beyond 45 higher degrees of heat become
 necessary and agreeable. — Heat is an
 universal stimulant ~~but~~ to all animals,
 and perhaps no animal exists without
 it. Different degrees of it act on $\frac{1}{4}$ powers
 of life in different ~~than~~ animals — hence
 is 32°

the freezing point, or for what we know
 many degrees below it, may be to some
 animals what 75° are to $\frac{1}{4}$ human
 body, — for ~~both~~ heat & cold are both
 relative terms — and the extremes of
 both are as yet unknown, as well
 as the full effects of both on animal
 life. —

There is however in every con-
 =stitution a certain degree of excitement
 produced by heat which constitutes its
 healthy point. This degree is nearly



the same in persons of the same age,
~~and in the same degree.~~

~~who~~ now whenever the heat exceeds
this degree it always induces ~~indirect~~
~~from action.~~

debility. [But this degree of healthy ex-
citement is varied not only by age, but
by the local temperature of the weather
which has preceded it. I once knew
77° [on the 17th of March 1791] produced
universal languor in the citizens of
Philadelphia from indirect debility. The same
degree of heat would have been gently
& gratefully stimulating had they oc-
curred in the months of July or August.]

~~This~~ The ^{direct} debility induced by
heat shows itself in the following ~~dis-~~
^{ways}
~~ways~~. 1 In the Arterial system it produces
languor - excitability, & a disposition

✓ 2 Heat acts when combined with the
solar rays in a peculiar manner on
the brain - producing it is called Insu-
-lation. This is sometimes suddenly
fatal - but ~~where the insensibility~~ ^{it more commonly}
according to Dr Girdlestone's acc^t: of the
~~is overcome it is in the~~ ^{is overcome it is in the} ~~Phrenetic~~
as a mode of disease in India - 1st a Synocha
~~is a form of the disease~~
fever - 2 a Phrenetic - 3 Immobility -
and 4th in its highest degree - cold sweats
convulsions & death. It is remarkable this disease
is unknown in Africa from the uniformity of its heat, & in-
✓ Dr Robert Wilson relates many curious
facts of the effects of the warm air 116 in Egypt
upon the British officers & soldiers. It produced
faintness ^{difficulty of breathing} - spitting of blood, & falling down - also
blindness, or false visions such as the sight of
camels - horses, & all kinds of animals
moving before them. It was always
increased by standing still, & lessened by
motion. Eating increased it. 0

to be acted upon by all the causes which induce fever. At 80° it is most disposed to mo-
 - Due malignant when long protracted. Discov^d by Dr Caldwell.

3 Upon the nervous system it produces excitability, & a disposition to be acted on by all the causes which produce convulsion & syncope - hence the greater frequency of ^{tetanic Hysteria} ~~tetanus~~ in warmer climates, & warmer weather than in cold, - hence also the frequency of fainting in the same countries & seasons. Heat beyond the healthy point of excitement dulls the sensation of touch - ~~and vision~~ ^{It even affects} - hence we read with difficulty in hot weather. It affects the brain with ^{giddiness} sleepiness in the day time, and when less stimulating so as not to produce ^{general depression} ~~indirect debility~~ - it produces wakefulness in the night. &c.

4 Heat acts upon the muscular fibres,

✓ ~~Heat~~ with also an indisposition to ~~move~~
voluntary motion. - hence ~~the~~ it is said
exists a necessity for domestic slavery in
all hot countries. -

Heat acts upon the Sympathetic System - Dis-
posing it to absorb more than usual - hence
awkwardness in going to a warm climate.

✓ This sweat has a saline taste.
~~It is~~ a ~~male~~ Russian officer who had
travelled a great deal ^{in warm countries} informed me y:
had never seen any person discharge
sweat from the back of the hand till
he came to America. It is remarkable
this sweat revives the marks of the
small pox - many years afterwards.

+ Heat produces eruptions or small
boils on the skin. This I have often
observed in hot summers especially
in children. Bernier takes notice of y:

first activity ^{kind} = then 33 languor & weakness
and produces in them weakness, and a
^{implantary} disposition to all motion, ^{particular} ^{to} ^{the} ^{degree} ^{of} ^{activity}
~~it is said of domestic slavery in all hot countries~~

Heat acts on the Stomach and Alimen-
tary canal - producing in the former
at first according to Dr Clark excess, afterwards
more especially for fresh animal food,
a want of appetite - and in the latter

a disposition to Colic - & Dysentery.

Heat acts on the ~~Body~~ ^{skin} producing in

a certain degree profuse discharges by
sweat, & for a higher degree ^{it produces} a universal
dryness, ^{last} This sometimes occurs in

reapers, & unless relieved is always
followed by sickness & death. This dryness

of the skin is often brought on by sleeping
in the open air in the shade in the

East Indies, and generally where in
the Hepatitis of ^{the} country. Heat

further - discharges the white from

same effect from heat in the East Indies. The
opercula, & prickly heat of hot climates
sometimes are produced by it, but they
sometimes depend as I shall say

hereafter on another cause. ^{that gives} ~~the~~
the freckles in faces - a centrifugal determination - hence
buboes & other swellings in the plague - & not in cold climates,
V This brown or dark color is brought on
the skin only by the heat of the sun. Hence
we observe Swiths & Cochs to be as fair
as other people. The fairer the skin, the
less apt it is to acquire a dark color
from the ^{rays} ~~heat~~ of the sun. The color
of the Blacks has been ascribed to the rays
of the sun. It is certainly one of its causes.
But several other causes concur to produce
it, as Diet - Disease & State of Society. ~~not the~~
Difference is perceptible between ^{the children of} a white & black
parents till 8 days after birth except in the
scrotum and glans penis which at birth
are of a dark color.

the color of the skin, and disposes it to
 brown or dark color. ✓ ~~to 12/ 10/ 39.~~ on
 being it in under this
 light.

Heat invigorates the venereal app^{tes}
 of females. Hence the early marriages, and
 the late fruitfulness among males w^{ch}.

occur in warm climates. Count
 Struensee who lost his life for ~~attempts~~
 reason against, the
 the present King of Denmark says in
 his confessions that he had formed a design
 to settle in the East Indies ~~for~~ purpose ^{of}
 he might enjoy in a higher degree this
 animal gratification. It is a curious

fact that this appetite should flourish
 under ^{a weak} ~~the~~ ~~weak~~ of every part of the
 system I shall hereafter mention
 some facts that show ^{2^d} it exists with
 the same force in direct as well as in

9 The effects of heat on the Ven Appetite
in middle latitudes in
appears from the greater number of births
which occur in the winter months than
in any other season of the year. Dr Boerhaave
supposes from this fact, that longevity is
connected to birth in cold weather, - but
if more persons have lived to be old, who
were born in winter than in other seasons,
it is owing to the greater number of
births in ^{that} season ^{than} in any other. Injunct:
to the influence of the seasonal sun in prope-
-gating his species, man sinks for a while
to a level with the lowest part of the animal
creation. Fish
are influenced by
it the most of any animals. Thortons

9 That by increasing perspiration ~~and~~
the duration of the ^{time} discharge of the menses in women.

10 Dr Pinchard remarks a singular
fact of the effects of heat in the West
Indies upon the body with respect to

the indirect state of debility of the system
 increases the penetration & execution of bile
 Heat acts on the blood disposing it to
 I say disposing to putrefaction only, for
 a ~~supra~~ putrefaction. This putrefaction
 is prevented by the bile according to Dr
 Manning - hence it is resorted more
 plentifully in hot weather than at
 a ~~low~~ putrefaction according to Dr Sydenham's
 experiments does not take place in the blood.
 product of a putrefactive process should
 check the further progress of putrefac-
 tion. But this is nothing new in the
 works of Nature. ^{vitae} ~~entire~~ the offspring
 of the putrefaction of vegetable & animal
 matters, preserves both of them from
 putrefaction & the green matters w.
 appear on stagnating waters, are
 vegetable productions which yield a
 dephlogisticated air which ^{purifies} ~~cleanses~~

slays. He says no depressions were felt
it in the morning & hence he says "to
wake & to rise - are the same thing" in
the West India Islands. -

the Air which exudes from ^{the} putrefying
 waters. — What renders Dr Mc Lurg's
 theory more probable is, that the bitterness
 of the Bile & now bitterness we all pro-
 duce by putrefaction in the rotten
 parts of an Apple, and of many
 other fruits. — This has often been remarked
 by Butchers in the Cattle they kill in the summer months.
 excessive in quantity — or excessive in its
 acrimony, ~~in both or cases~~ & sometimes
 it finds its way into the stomach — in
 all which cases it produces disease,
 hence the frequency of complaints of
 a redundancy of bile in warm Cli-
 mates. But it produces diseases more
 frequently from being vitiated by
 a mixture with marsh miasmata —
 hence the frequency of bilious fevers

118^v Heat acts upon the eye light - hence
the frequency of ophthalmia - Cataracts.
I gutta serena in warm countries.
Ophthalmias were very common in
the warm dry summers and Autumn
of 1793⁸ they are universal in Egypt.

th
13th It acts is less unfriendly to old than
young people - hence the practice of
the old Romans & modern Portuguese,
of retiring to a warm climate.
But when so intense as to produce
^{great dyspnoea} ~~indeed debility~~, it is often suddenly
fatal. - It is a source of many disor-
ders in children especially under 2 years
old. hence $\frac{1}{3}$ of all who are born die under
+ ^{period} ~~term~~ of life. - ~~the influence of~~

Under the head of the effects of heat upon
the body, I shall include the influence of
what are called the Dry winds. They blow
are common in Aleppo and in some
parts of Italy. They derive their heat from
passing over immense beds of sand heated
by the sun. They are extremely debilitating
and dispose to many diseases. Baydoun de-
scribes it as having occurred at Naples while
he was there, and speaks with great pity &
contempt of an Italian Marquis whom
he met with a morning walk supporting
himself under the pressure of this air by
means of a smelling bottle. -
15 and lastly the influence of = p 38-

in countries exposed to those exhalations.

V. ~~toro.~~

19th
Heat, producing ^{by} indirect debility acts
^{certain} upon all the faculties of the mind, producing
weakness in the ^{memory -} understanding - and the
moral faculties - Perhaps the imagination
is not impaired by heat - It is probably
invigorated by it. Buffon says that
hot climates weaken genius, & check
invention, but that they encrease the
powers of imitation. This seems to de-
pend on a correct state of the faculty
of taste. By the language it induces on
the ~~body~~ ^{senses} mind - it disposes to the use of Opium -
as says - strong drink - of the Absolutists
how far have I spoken of heat
acting in ordinary cases without
any previous preternatural excitability?
Let us next attend to its relative effects
in the system. But Where the System

effected only by the heat of the sun. No other heat produces it. Hence Smiths & Cooks are as fair as other people. The fairer the skin, the less disposed it is to acquire a brown color from the rays of the sun.

= heat extends so far as to lessen the density of the solids of the body, - hence are under equal circumstances of European of whom weighed in the opposite scale ~~of a~~ Chinese or a Hindoo is always heavier. The bones ~~are~~ specifically lighter than the bones of a person who has lived & died in a warm climate. -

~~Being in India the effects of the~~
~~Winds p 126 127 3~~

has been previously exposed to cold, it acts more certainly, and with ~~an~~ ^{an} ~~greater~~ ^{varied} force ~~proportional~~ ^{by} to the disproportion between the temperature of the body and the heat which is applied. &

once known 77° on the 17 of March 1798 produce universal ^{febrility and dyspnea} ~~congestion~~ on the citizens of Philad^a ~~from isadirect stability~~

The same degree of heat would have been gently, & gratefully stimulating had they occurred in the months of July or August. — Inflam^y ~~fevers~~ ^{fevers} seldom fail to follow the sudden action of even moderate heat when it has been preceded by cold. ~~Thence~~ ^{thence} the frequency of these fevers in the Spring, & in open winters. The old saying that a green

+ This is the case in the nights in summer after
a day in which the \bar{t} has stood at 85° - the
coolness of the air was \bar{b}

V It is equally remarkable that
the weather which becomes moderate
from being very hot, excites the sensation
of cold & produces diseases ^{+ see above} ~~which~~ was
possibly felt at Naples by Bydane
when the \bar{t} ~~dropped~~ after a syrocco sud-
denly fell from 122° to 50° . Dr. Fordyce
felt it exquisitely coming from 100° to 45° . Similar facts
by himself when it fell from 90° to 80° . - the syrocco 69.
the sudden Abstraction of heat

Often various fever either 1 by
repelling perspiration, or 2 ^{overcoming} ~~removing~~
the ^{into} action of some other stimuli eg.
in the yellow fever. The coolness of the
night air after a hot day produced in
the soldiers who marched from Suez to
Cairo, such a numbness ^{in their limbs} that they
were scarcely able to move the mor-
ning afterwards. 3 Destroying the Equi-
-librium of the system, &

Christmas, or a Xmas in which the
ground is covered ⁱⁿ verdure, makes a
fat Church yard in the Spring is certainly
well founded. I have several times
observed it in this city. ✓

It is reprehensible that weather ^{farther} ~~unusually~~
~~formerly warmer~~ ^{dry of itself} ~~produces~~ ^{of itself} diseases.

- It is only when it is varied alternately
with cold or moisture that it is most
unhealthy. The most healthy summers
I have known, have been the warmest.

- The ^{summer of} year 1766 in Rome is
placed upon record as an uncommonly
warm season, & yet says the person
who describes the heat of that summer,
"our town was uncommonly healthy,
all our hospitals were nearly empty."

thus inducing a fever without the coo=
-operation of air? irritant, or exciting
cause. ~~Anterior cold is induced by~~

~~It has been remarked that the body
suffers much less in passing ^{suddenly} from
extreme heat to cold, than from~~

But the Antrums which follow these
 hot summers are ^{often} generally marked
 with bilious & ~~jaundic~~ diseases. It is
 thus we see diseases are generated
 in one season, & produced in another.

It is remarkable further that
 again.

Heat ^{when} long applied to the
 body, produces the same insensibility
 to its cold, that it does to itself. The
 West Indians ~~experience~~ bear the cold of our
 climate for a year or two better
 than our natives. It is commonly
 said that they require a year or
 two to be cooled after having been
 exposed for a number of years

V How shall we reconcile this fact with
the ~~sudden~~ painful sensation of cold
felt by persons ~~on~~ ^{passing} from a heat
of ^{112° - 120°} 90° to 80° ^{or} formerly mentioned? I answer
in this case the ^{susceptibility is previously accumulated by} transition is ~~always~~
~~sudden~~ ~~whereas~~ by the heat, & the
transition to the ~~low~~ ^{or rather} grades of heat
below it, is so sudden as to produce
the sensation of cold. In the case of the
West Indians the susceptibility to heat is
blunted, by ^{its} long application ^{under a} of a vertical
sun, and the cold of our climate is ap-
plied so gradually to their bodies, as not
to destroy this ^{susceptibility} for two or three
years.

Upon my giving this solution of the
above phenomena to Baron Humbolt
in his late visit to this city, he com-
municated to me the following fact. 300
men work every day from morning till

to the intense heat of a vertical
~~sun~~ sun \vee

In producing all these effects on
 the body, the heat often rises 10° &
 even 20° degrees above the ordinary
 heat of the body, - & yet life is not
 extinguished by it. The reason of this
 I gave when I treated on animal
 heat.

If such be the numerous and
 morbid effects of heat on the animal
 body, it is natural to inquire ^{why} ~~how~~
^{Author of nature}
 the ~~Creator~~ ^{Author of nature} of the world placed man
 in immediately after his creation
 in a warm climate, and why

Evening
~~light~~ in a mine runs ~~1900~~ feet below
the surface of the earth, in which the temperature
of the air is at all times from 100° to 102° . They
come out of this mine in the evening, & pass
the night in an atmosphere in which the
heat is between 40° & 50° yet they never take

✓ It was in similar climates that
men have attained to the greatest
degrees of longevity.

may more they
cold, and ~~and~~ enjoy good health. This is ^{the heat of} reason-
-ability to this sudden change in the atmos-
-phere must be ascribed to the intensity
of the heat in the mine. Destroying all
susceptibility both to itself, & to cold.

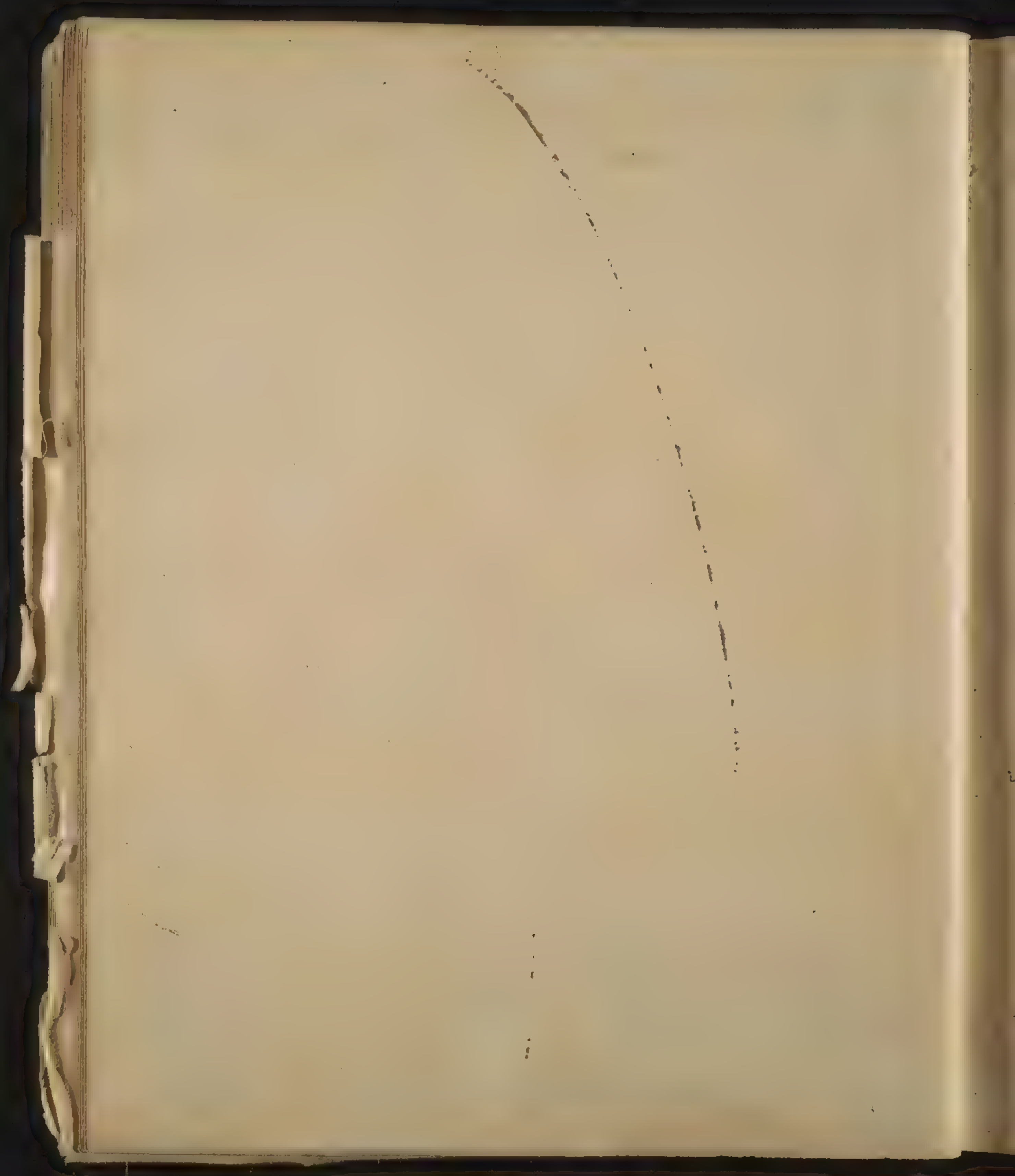
Cold ~~more~~ certainly induces disease
when it acts ^{suddenly} upon bodies exposed to an uniform
heat, but not intense heat. ~~It is more~~ Its morbid
effects are so general, that Dr. Moseley
considers every person in a West India
Island as constantly exposed & predisposed to
to disease from cold. Hence the heat at 80°
predisposes so much in our climate to yellow fever.

human nature has been more
 honoured, in hot countries than in any
 other parts of the world. ~~It was~~ ^{It was}
^{here} the cradling place of Egypt, that
 arts and sciences acquired a perfection
 that have ~~ever since~~ astonished all
 succeeding generations. To account for
 these facts it will be necessary to ob-
 -serve that where men avail themselves
 of the aids of experience & of human
 reason, there is ^{no} climate necessarily
 unhealthy. The natives of Africa
 enjoy good health, & grow old in
 the neighbourhood of factories which
 prove graves to the Europeans who
 settle among them. The ^{Aborigines} ~~origines~~

has been observed that
= It is ~~unusually~~ ^{suddenly} the body suffers
much less in passing from the extremes
of heat to cold, than from the extremes
of cold to heat. —

Cold creates

of Hispaniola & Jamaica knew nothing
of the diseases which have since ~~con-~~
~~tinuated~~ destroyed so many thousands
of the descendants or fellow citizens
of the men who at first extirpated
them. Even those ~~but~~ civilized inhabi-
tants of warm countries who live
agreeably to reason, enjoy good health &
attain to long life. Mr Townsend
tells us that a Spaniard in Madrid
~~as~~ ~~conceals~~ himself in a close and
dark room during the heat of the
day, - and thereby avoids all the
diseases of warm weather. His
bed - his drinks - his diet - his ap-
parel - &c are all accommodated to
his climate - while the Englishman



44
who visits this country, & neglects
all these precautions, generally to cry
for his remedy by submitting to
some of the diseases which have been
mentioned. — I conclude therefore
that most of the diseases of which
have been ascribed to heat may be
resolved into certain errors or irregu-
larities in diet & ^{drinks} - exercise - or
passions of the mind. — the effects of

I go on to observe that heat ~~produces~~
upon the body are much varied by being ~~they are~~
~~different efforts according as they~~ combined
with dryness or moisture. In the deserts
of Arabia - & Arabia Travellers often
feel a difficulty of breathing which
is relieved by inhaling a little
moisture from a sponge which

V Day. There is a material difference in the diseases of some countries according as the heat of the weather is accompanied by dryness, or moisture. Dr Clark says the diseases of a dry ^{in the East Indies} hot season are Dysentery, Colic, and Cholera, ^{& Typhoid} of a mild nature, while a wet hot season produces ^{violent} fevers & dysenteries. Dr Hillary says the diseases of Barbadoes are more inflamed in a hot & dry than in a hot & wet season. The same thing is taken notice of by Dr Daxelle. The highly inflamed type of the yellow fever in 1793 which is uniform ~~was accompanied~~ only required copious blood-letting ~~was followed by a violent~~ was preceded & accompanied by dry summer weather. Had moisture accompanied that heat, the fever w^d.

they often carry with them for that purpose. The heat of a close stove room produces the same effect, and it is only to be removed by promoting the evaporation of water in the room. It would seem as if a certain portion of moisture in the air was absolutely necessary to its being ~~fit~~ fit for respiration.

Moisture varies the effects of heat upon the body. When the ^{temperature} ~~heat~~ of the air rises to be equal or nearly equal to that of the body, it refuses to conduct off the ~~heat~~ heat of the body, thence such an accumulation of heat, & perspiration takes place as

probably been left openly inflam^d - or would
have appeared in the form of a malignant
Dysentery, that might have forbidden V.S.

V & all writers on West India Diseases
say the same thing.
- ~~and~~ Dr Withering in his Epidemics
says that seasons long & uniformly
rainy in ~~the~~ England were uncommonly
healthy. ~~There~~ In some parts of the world,
the moisture, ^{or rather mist} which is ^{exhaled} ~~drawn~~ from the sea,
produces a peculiar effect upon the temper,
known in England by the name of Sea feet.
It is common ~~during~~ in north? in Engl?
& in Barcelona in Spain. It continues
for four or five days, & during which
time sickness or fretfulness is universal
among the inhabitants of those countries.

lay the foundation for many diseases.
 when ^{the temperature} ~~this moisture~~ of the air is con-
 siderably below the heat of the body,
 it is seldom attended with any mor-
 bid effects. Dr Hunter says the wet
 seasons in Jamaica are not unhealth-
 y where the inhabitants are not
 exposed to any morbid exhalations.
 A temperate Air joined with mois-
 ture has a peculiar effect upon
 the Skin. It imparts to it its beau-
 tiful red and white complexion.
 The fine Complexions of the natives
 of England & Ireland are owing
 chiefly to the constant moisture
 of those countries, for there falls

① ~~In South~~ at Asunción in South America,
 the intense heat of the sun produces a disease
 of a very different kind from those which it
 induces in the East Indies, & in the further parts
 of Europe. It is known among the Natives
 by the name of Uecka - or the worm. It is
 a fixed and exquisite pain in the Rectum
 which terminates speedily in a mortification
 & Death. no woman attends it. Its remedy Baron
 Humboldt informed me was a piece of a fresh
 lime thrust up the Anus. ~~Chenice~~
 & the effects of Insolation is, uncommon

in Jamaica, England? in 1704 many people
& men horses & oxen perished in the fields from
it. In China Peking in 1743, 11,000 people
perished from it between the 14. & 25. of July.
mostly by ☉

A Frenchman in this city lost his ear
for music, & his touch of a musical cord
by a stroke of the sun.

